

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 October 2003 (16.10.2003)

PCT

(10) International Publication Number
WO 03/084884 A1

(51) International Patent Classification⁷: C03B 5/027

(21) International Application Number: PCT/IB03/01271

(22) International Filing Date: 8 April 2003 (08.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
VI2002A000065 11 April 2002 (11.04.2002) IT

(71) Applicant (for all designated States except US): TREND GROUP SPA [IT/IT]; VIALE DELL'INDUSTRIA, 42, I-36100 VICENZA (IT).

(72) Inventor; and

(75) Inventor/Applicant (for US only): BIZAZZA, Giuseppe [IT/IT]; Contrà Busa S. Michele, 10, I-VICENZA Vicenza (IT).

(74) Agent: MAROSCIA, Antonio; Maroscia & Associati S.R.L., Contrà S. Caterina, 29, I-36100 Vicenza (IT).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

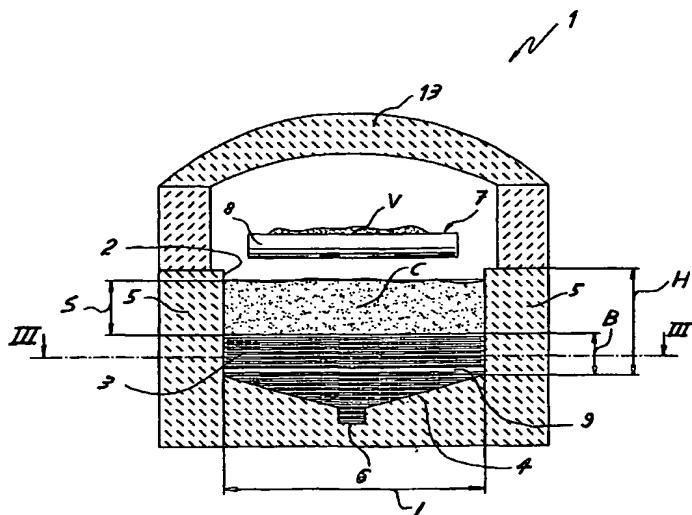
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND ELECTRIC FURNACE FOR MELTING VITREOUS MATERIALS



WO 03/084884 A1

(57) Abstract: An electric furnace (1) for melting vitrifiable materials (V), in particular for the manufacture of vitreous mosaic materials and ceramic frits as well as for the vitrification of waste, where the primary material is frequently changed, comprises a melting tank (2) for containing a molten bath (3) with a head (B), having a floor (4) and side walls (5), channels (6) for discharging the molten materials, a crown (13) which is situated above the floor (4), means for introducing a primary batch of vitrifiable materials (V) into the tank (2) and for depositing a covering layer (C) on the molten bath (3), and a plurality of electrodes (9) with a predetermined shape and position, situated inside the tank (2) for melting completely the vitrifiable materials (V) by means of diffused electric currents. The electrodes (9) substantially rest on the floor (4) so as to reduce to a minimum the head (B) of the molten bath (3), with a consequent reduction in the time required to change the primary batch and the power consumption.